This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1(original). A sample analysis system with chip-based electrophoresis device, comprising:

an auto-sampling device for loading and introducing a sample;

a chip for loading an separation of the sample;

a power supplier for providing electric voltage to said chip and separating said sample;

a detecting unit for detecting the signal generated by said sample;

a signal collecting unit for collecting the signal of the sample detected by the detecting unit; and

a signal processing unit for outputting said signal.

2(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 1; wherein said auto-sampling device is a flow-based auto-sampling device by dynamic force.

3(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 1; wherein said auto-sampling device further comprising the continuous mode and the discrete mode of sample introduction.

4(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 3; wherein said discrete mode of sample introduction of the auto-sampling device comprises a pump and an injector.

5(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 3; wherein said continuous mode of sample introduction of the auto-sampling device continuously loading sample by means of a microdialysis method.

6(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 1; wherein said detecting unit is an optical detecting unit.

7(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 6; wherein said optical detecting unit is a fluorescent detecting unit which comprises a light source, a lens, an excitation filter, a dichoric mirror, an emission filter, a pinhole, and a photo-multiplier tube.

8(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 1; wherein said signal processing unit is a computer.

9(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 1; wherein said signal collecting unit converts the collected signal of the sample from analog signal into digital signal.

Claims 10-16(canceled).

17(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 1, wherein said chip can be performed with a derivatization method of a material surface, comprising the steps of:
    1. rising the material surface by sodium hydroxide of a certain concentration;
    2. rinsing the material surface by evaporated water;
    3. rising the material surface by acetone, and then place the material surface at an appropriate temperature for baking and drying;
    4. rinsing the material surface by toluene;

5. introducing trimethyldichlorosilane (TMCS) dissolved in toluene with specific concentration onto the material surface, and continue the reaction for an appropriate time at a specific temperature;

6. rinsing the material surface by toluene, then fill the material surface with methanol and let the material surface sit still for an appropriate time;

7. rinsing the material surface by ethanol, toluene, and acetone; and

8. baking and dry the material surface at an appropriate temperature.

18(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 17, wherein said derivatization method is used for the material having a Si-OH material surface.

19(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 17, wherein said sodium hydroxide concentration as described in step 1 is 1 equivalent weight concentration (N); said appropriate temperature as described in step 3 is 60°C~80°C; and said specific concentration as described in step 5 is 10% trimethyldichlorosilane (TMCS) dissolved in toluene.

20(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 17, wherein said trimethyldichlorosilane (TMCS) is replaced by dimethyldichlorosilane (DMCS).

21(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 20, wherein said DMCS has a concentration of 10% DMCS dissolved in toluene.

22(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 17, wherein said specific temperature as described in step 5 is 80°C,

and the appropriate time is 60 minutes; said appropriate time as described in step 6 is 5 minutes; and said appropriate temperature as described in step 8 is 60°C~80°C.

23(original). A sample analysis system with chip-based electrophoresis device as claimed in claim 1; wherein said sample loading channel of the chip being applied by electric voltage generates no electrical field.

24(original). A sample analysis system with a chip-based electrophoresis device as claimed in claim 23; wherein said sample loading channel without electric field is able to perform different treatments on its surface for specific bio-reaction of the sample, and then introduce the sample into the separation channel of the chip for immediate online analysis and detection.

25(original). A sample analysis system with a chip-based electrophoresis device as claimed in claim 24; wherein said surface treatment on the surface of the sample loading channel comprises the immobilized matter of antigen, antibody protein and enzyme.